

10/634,419

2

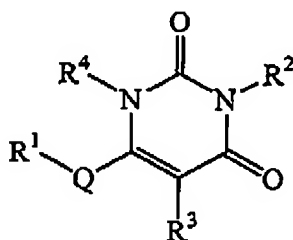
PC25286A

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1 (currently amended). A compound of Formula I



or a pharmaceutically acceptable salt thereof,

wherein:

R^1 is independently selected from:

Phenyl-(C_1 - C_8 alkylene);

Substituted phenyl-(C_1 - C_8 alkylene);

5- or 6-membered heteroaryl-(C_1 - C_8 alkylene);

Substituted 5- or 6-membered heteroaryl-(C_1 - C_8 alkylene);

8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene); and

Substituted 8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene); and

R^2 is independently selected from:

Phenyl-(C_1 - C_8 alkylene)_m;

Substituted phenyl-(C_1 - C_8 alkylene)_m;

5- or 6-membered heteroaryl-(C_1 - C_8 alkylene)_m;

Substituted 5- or 6-membered heteroaryl-(C_1 - C_8 alkylene)_m;

8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene)_m; and

Substituted 8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene)_m;

10/634,419

3

PC25286A

Each substituted R¹ and R² group contains from 1 to 4 substituents, each independently on a carbon or nitrogen atom, independently selected from:

C₁-C₆ alkyl;
CN;
CF₃;
HO;
(C₁-C₆ alkyl)-O;
(C₁-C₆ alkyl)-S;
(C₁-C₆ alkyl)-S(O);
(C₁-C₆ alkyl)-S(O)₂;
O₂N;
H₂N;
(C₁-C₆ alkyl)-N(H);
(C₁-C₆ alkyl)₂-N;
(C₁-C₆ alkyl)-C(O)O-(C₁-C₈ alkylenyl)_m;
(C₁-C₆ alkyl)-C(O)O-(1- to 8-membered heteroalkylenyl)_m;
(C₁-C₆ alkyl)-C(O)N(H)-(C₁-C₈ alkylenyl)_m;
(C₁-C₆ alkyl)-C(O)N(H)-(1- to 8-membered heteroalkylenyl)_m;
H₂NS(O)₂-(C₁-C₈ alkylenyl);
(C₁-C₆ alkyl)-N(H)S(O)₂-(C₁-C₈ alkylenyl)_m;
(C₁-C₆ alkyl)₂-NS(O)₂-(C₁-C₈ alkylenyl)_m;
3- to 6-membered heterocycloalkyl-(G)_m;
Substituted 3- to 6-membered heterocycloalkyl-(G)_m;
5- or 6-membered heteroaryl-(G)_m;
Substituted 5- or 6-membered heteroaryl-(G)_m;
(C₁-C₆ alkyl)-S(O)₂-N(H)-C(O)-(C₁-C₈ alkylenyl)_m; and
(C₁-C₆ alkyl)-C(O)-N(H)-S(O)₂-(C₁-C₈ alkylenyl)_m;

wherein each substituent on a carbon atom may further be independently selected from:

Halo; and

10/634,419

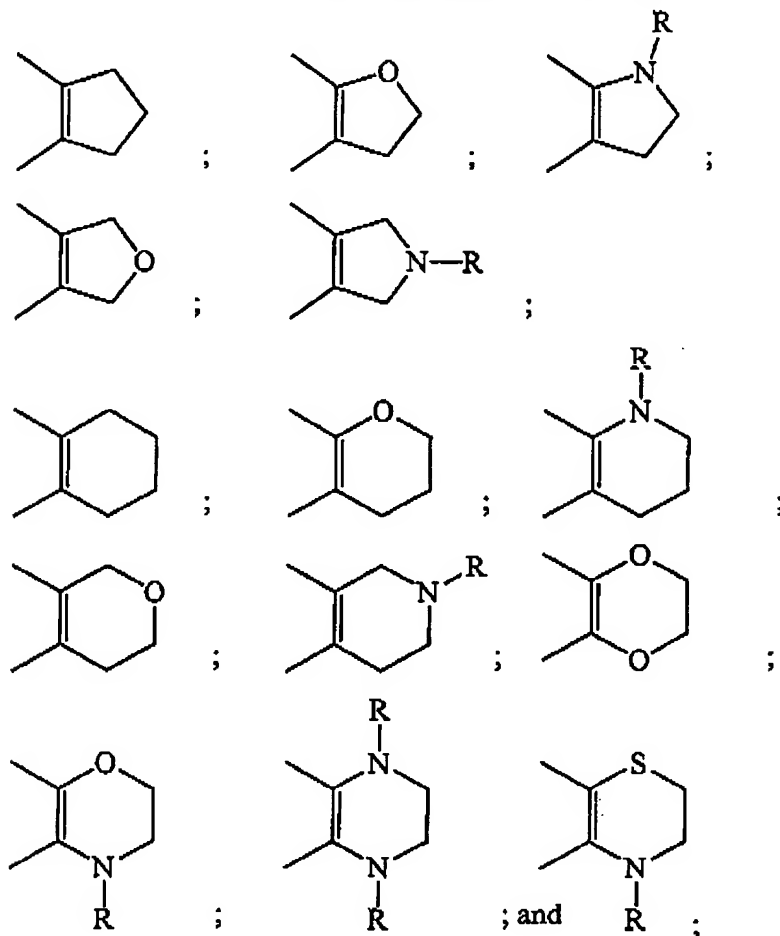
4

PC25286A

 HO_2C ;

wherein 2 substituents may be taken together with a carbon atom to which they are both bonded to form the group $\text{C}=\text{O}$;

wherein two adjacent, substantially sp^2 carbon atoms may be taken together with a diradical substituent to form a cyclic diradical selected from:

R is H or $\text{C}_1\text{-C}_6$ alkyl;G is CH_2 ; O, S, $\text{S}(\text{O})$; or $\text{S}(\text{O})_2$;

Each m is independently selected from an integer of 0 or 1;

 R^3 is independently selected from the groups:

H;

 CH_3 ;

10/634,419

5

PC25286A

 CH_3O ; $\text{CH}=\text{CH}_2$; HO ; CF_3 ; CN ; HC(O) ; $\text{CH}_3\text{C(O)}$; HC(NOH) ; H_2N ; $(\text{CH}_3)\text{-N(H)}$; $(\text{CH}_3)_2\text{-N}$; $\text{H}_2\text{NC(O)}$; $(\text{CH}_3)\text{-N(H)C(O)}$; $(\text{CH}_3)_2\text{-NC(O)}$;

Halo; and

 CO_2H ;

Q is O;

~~L is independently selected from CH_2 , C(O) , O, S, S(O) , S(O)_2 , and $\text{N(R}^6\text{)}$;~~ ~~R^4 , R^5 , and R^6 are independently H or $\text{C}_1\text{-C}_6$ alkyl;~~ ~~R^4 independently is H or $\text{C}_1\text{-C}_6$ alkyl;~~~~wherein each $\text{C}_8\text{-C}_{10}$ bicycloalkyl is a bicyclic carbocyclic ring that contains 8-, 9-, or 10-member carbon atoms which are 5,5-fused, 6,5-fused, or 6,6-fused bicyclic rings, respectively, and wherein the ring is saturated or optionally contains one carbon-carbon double bond;~~~~wherein each 8- to 10-membered heterobicycloalkyl is a bicyclic ring that contains carbon atoms and from 1 to 4 heteroatoms independently selected from 2 O, 1 S, 1 S(O) , 1 S(O)_2 , 1 N, 4 N(H) , and 4 $\text{N(C}_1\text{-C}_6\text{ alkyl)}$; and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double~~

10/634,419

6

PC25286A

~~bond, and wherein the heterobicycloalkyl is a 5,5-fused, 6,5-fused, or 6,6-fused bicyclic ring, respectively,~~

wherein each heterocycloalkyl is a ring that contains carbon atoms and from 1 to 4 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 4 N(H), and 4 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond;

wherein each 5-membered heteroaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and each 6-membered heteroaryl contains carbon atoms and 1 or 2 heteroatoms independently selected from N, N(H), and N(C₁-C₆ alkyl), and 5- and 6-membered heteroaryl are monocyclic rings;

wherein each heterobiaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and where the 8-, 9-, and 10-membered heterobiaryl are 5,5-fused, 6,5-fused, and 6,6-fused bicyclic rings, respectively, and wherein at least 1 of the 2 fused rings of a bicyclic ring is aromatic, and wherein when the O and S atoms both are present, the O and S atoms are not bonded to each other;

wherein with any (C₁-C₆ alkyl)₂-N group, the C₁-C₆ alkyl groups may be optionally taken together with the nitrogen atom to which they are attached to form a 5- or 6-membered heterocycloalkyl; and

wherein each group and each substituent recited above is independently selected.

2 to 6 (canceled).

7 (previously presented). A compound selected from:

3-Benzyl-6-{2-[3-(2,4-dichloro-phenyl)-isoxazol-5-yl]-2-oxo-ethylsulfanyl}-5-methyl-1H-pyrimidine-2,4-dione;

10/634,419

7

PC25286A

3-Benzyl-6-[5-(4-chloro-phenyl)-isoxazol-3-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[3-(4-methoxy-phenyl)-isoxazol-5-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[3-(2,6-dichloro-phenyl)-isoxazol-5-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[5-(2-chloro-phenyl)-isoxazol-3-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[2-(4-chloro-phenyl)-thiazol-4-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[5-(4-methoxy-phenyl)-[1,2,4]oxadiazol-3-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[3-(4-chloro-phenyl)-[1,2,4]oxadiazol-5-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[3-(4-chloro-phenyl)-isoxazol-5-ylmethylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

6-(4-Amino-5-phenyl-4H-[1,2,4]triazol-3-ylsulfanyl)-3-benzyl-5-methyl-1H-pyrimidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

8 (previously presented). A compound selected from:

3-Benzyl-5-methyl-6-[5-(2-methylsulfanyl-pyridin-3-yl)-[1,2,4]oxadiazol-3-ylmethylsulfanyl]-1H-pyrimidine-2,4-dione;

3-Benzyl-5-methyl-6-(3-phenyl-isoxazol-5-ylmethylsulfanyl)-1H-pyrimidine-2,4-dione;

3-Benzyl-5-methyl-6-(5-phenyl-isoxazol-3-ylmethylsulfanyl)-1H-pyrimidine-2,4-dione;

3-Benzyl-5-methyl-6-(5-phenyl-[1,2,4]oxadiazol-3-ylmethylsulfanyl)-1H-pyrimidine-2,4-dione;

10/634,419

8

PC25286A

3-Benzyl-5-methyl-6-(2-phenyl-thiazol-4-ylmethylsulfanyl)-1H-pyrimidine-2,4-dione;

3-Benzyl-5-methyl-6-[3-(4-nitro-benzyl)-[1,2,4]oxadiazol-5-ylmethylsulfanyl]-1H-pyrimidine-2,4-dione;

3-Benzyl-6-[5-(4-chloro-phenylamino)-2H-[1,2,4]triazol-3-ylsulfanyl]-5-methyl-1H-pyrimidine-2,4-dione;

6-(Benzothiazol-2-ylsulfanyl)-3-benzyl-5-methyl-1H-pyrimidine-2,4-dione; and

3-Benzyl-6-(6-methoxy-benzothiazol-2-ylamino)-5-methyl-1H-pyrimidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

9 (previously presented). A compound selected from:

3-Benzyl-6-[3-(2,6-dichloro-phenyl)-isoxazol-5-ylmethylsulfanyl]-1,5-dimethyl-1H-pyrimidine-2,4-dione;

3-Benzyl-1,5-dimethyl-6-[5-(3-methyl-4-nitro-phenyl)-[1,3,4]oxadiazol-2-ylmethylsulfanyl]-1H-pyrimidine-2,4-dione;

3-Benzyl-1,5-dimethyl-6-[5-naphthalen-2-yl-[1,3,4]oxadiazol-2-ylmethylsulfanyl]-1H-pyrimidine-2,4-dione;

3-Benzyl-1,5-dimethyl-6-(5-phenyl-isoxazol-3-ylmethylsulfanyl)-1H-pyrimidine-2,4-dione; and

3-Benzyl-1,5-dimethyl-6-[3-(4-nitro-benzyl)-[1,2,4]oxadiazol-5-ylmethylsulfanyl]-1H-pyrimidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

10 (original). A pharmaceutical composition, comprising a compound according to Claim 1, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, excipient, or diluent.

10/634,419

9

PC25286A

11 (previously presented). A pharmaceutical composition, comprising a compound according to any one of Claims 7 to 9, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, excipient, or diluent.

12 (original). A method for treating osteoarthritis or rheumatoid arthritis, comprising administering to a patient suffering from osteoarthritis or rheumatoid arthritis a nontoxic effective amount of a compound according to Claim 1, or a pharmaceutically acceptable salt thereof.

13 (previously presented). A method for treating osteoarthritis or rheumatoid arthritis, comprising administering to a patient suffering from osteoarthritis or rheumatoid arthritis a nontoxic effective amount of a compound according to any one of Claims 7 to 9, or a pharmaceutically acceptable salt thereof.